

WHAT IS CLAIMED IS

1. A turbocharger for an internal combustion engine, wherein a radial bearing for supporting a rotary shaft of the turbocharger is made of a copper alloy containing, as main components, Cu, Zn, Al, Mn, and Si.

2. A turbocharger for an internal combustion engine in which a turbine blade that rotates by receiving pressure and temperature energy of exhaust gas of the internal combustion engine is attached to one end of a rotary shaft and a compressor blade that rotates by power of said turbine blade to compress air by centrifugal force of rotation, thereby generating boost pressure is attached to the other end of the rotary shaft.

wherein a radial bearing for supporting movement in the radial direction of said rotary shaft is made of a copper alloy containing, as main components, Cu, Zn, Al, Mn, and Si.

3. The turbocharger for an internal combustion engine according to claim 1 or 2, wherein said radial bearing is made of a brass copper alloy containing 54 to 64 wt% of Cu, 0.2 to 3.0 wt% of Si, 0.2 to 7.0 wt% of Mn, 0.5 to 3.5 wt% of Al, and the rest of substantially Zn.

4. A turbocharger for an internal combustion engine, wherein a radial bearing for supporting a rotary shaft of the turbocharger is made of a brass alloy in which an Mn-Si compound is crystallized in a brass base material.

5. The turbocharger for an internal combustion engine according to claim 4, wherein said radial bearing has a structure in which an Mn-Si compound crystallized in said brass base material is elongated in the axial direction of said rotary shaft and dispersed.

6. The turbocharger for an internal combustion engine according to claim 4, wherein said radial bearing is made of a floating metal.

7. The turbocharger for an internal combustion engine according to any one of claims 1 or 2 or 6, further comprising a thrust bearing for regulating motion in the thrust direction of said rotary shaft, the thrust bearing being made of the same material as that of said radial bearing.